

ANGLED RIDING STIRRUP

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1 ANGLED RIDING STIRRUP

2
3 CROSS-REFERENCE TO RELATED APPLICATION

4 This application is a continuation of U.S. Patent Application serial No. 09/728,533, filed
5 December 1, 2000, and entitled "Angled Riding Stirrup," now U.S. Patent No. _____,
6 which claims the benefit of United States Provisional Patent Application No. 60/168,885 entitled
7 "Intentionally Crooked Stirrup," filed December 3, 1999. The entire content of these
8 applications are incorporated in the present application. The Applicant claims priority from U.S.
9 Patent Application 09/728,533 under 35 U.S.C. 120 and claims priority from provisional
10 application 60/168,885 under 35 U.S.C. 119.

11
12 FIELD OF THE INVENTION

13 The invention relates to riding gear and, more particularly, to a stirrup for use with a
14 riding saddle, especially a western equestrian riding saddle.

15
16 BACKGROUND OF THE INVENTION

17 The traditional western riding stirrup helps dictate the position of the rider's body and
18 legs while also providing a base of support for the rider. Stirrups are generally used in pairs, with
19 one stirrup hanging on stirrup leathers on each side of the saddle. The stirrups hang from the
20 saddle in position to accept the rider's feed when the rider is sitting in the saddle. Each stirrup
21 includes generally a hanger for connecting to the stirrup leathers, two lateral sides, and a base or
22 tread portion on which the rider's foot actually rests.

1 Traditionally, a new rider assumes a sitting position in a western saddle and adjusts the
2 stirrup leather length in an attempt to place the bottom or base of each stirrup where it provides
3 the most stability to the rider. Over an extended period of practice, the rider then learns to adjust
4 their foot, leg, and body position to facilitate an acceptable horsemanship quality to the riding
5 position.

6 There have been many variations in western stirrups. Common variations include
7 variations in the length and width of the tread or base portion of the stirrup. In all of the
8 numerous prior art variations in riding stirrups, however, the rider's weight was unevenly
9 distributed on their feet. Specifically, straddling the horse placed greater pressure on the outer
10 most side of the rider's feet and toes. This uneven pressure on the stirrups often resulted in
11 numbness in the feet, knee, ankle, foot, and leg pain, blisters and general riding discomfort.

12 Traditional saddles were, and still are, built with a rearward seat pocket and the stirrup
13 leathers hung generally forward on the saddle to allow riders to more easily spread their knees
14 and adjust their leg and foot position to lessen the pressure on the outer edge of each foot.
15 However, this solution to the problem of uneven pressure on prior art stirrups severely degraded
16 the rider's balance. The more pressure that is added to the stirrups to control balance, the more
17 torque is generated, on the feet, to force the riders' knees in toward the horse. The riders'
18 balance is adversely affected since the rider's center of gravity is raised significantly.

19 The vertical balance saddle which is the subject of U.S. Patent No. 5,953,889 severely,
20 and by design, restricted the ability of the rider to adjust in the saddle. The saddle forces a pre-
21 defined, good, and effective horsemanship position in the saddle. However, the riding position
22 causes the base (sole) of the rider's feet to tip (horizontally) with the outer edge of each foot

considerably lower (closer to the ground) than the inside edge of the foot. These same conditions were also evident to a lesser extent in prior western equestrian saddles.

SUMMARY OF THE INVENTION

It is an object of the invention to provide a riding stirrup which overcomes the above-described problems associated with stirrups used with riding saddles, particularly western riding saddles.

A riding stirrup according to the invention includes a hanger rod for connecting the stirrup to a saddle, and a stirrup loop connected to the hanger rod. The stirrup loop defines a stirrup opening through which a rider may extend their foot when the rider is sitting in the saddle. The stirrup loop includes an elongated base support tread positioned generally at the bottom of the loop. According to the invention, the base support tread extends at a slant with respect to a stirrup centerline which extends perpendicular to the longitudinal axis of the hanger rod, through a midpoint of the rod, and through the base support tread. That is, unlike prior art stirrups, the base support tread according to the present invention does not extend perpendicular to the stirrup centerline.

The base support tread may be thought of as having an inner tread section and an outer tread section. The inner tread section is positioned nearest the horse when the stirrup is in the operating position and is adapted to support the inside of the rider's foot. The outer tread section is farther away from the horse when the stirrup is in the operating position and provides a surface for supporting the outside of the rider's foot. The slant of the base support tread is such that the distance between the inner tread section and hanger rod is less than the distance between the hanger rod and outer tread section. That is, considering a horizontal plane positioned above the

1 level of the base support tread, the base support tread slants away from the plane in the direction
2 from the inner tread section toward the outer tread section.

3 The inner tread section defines an inner angle with the stirrup centerline which is less
4 than an outer angle defined between the outer tread section and the stirrup centerline. In the
5 preferred form of the invention in which the inner tread section is coplanar with the outer tread
6 section, the inner angle comprises an acute angle whereas the outer angle comprises an obtuse
7 angle.

8 The angled stirrup base tread according to the invention provides a substantial increase in
9 the rider's balance. The rider's feet more generally fit flat against the base portion of the stirrup
10 giving the rider a very noticeable sense of increased security in the saddle. Also, the rider's
11 center of gravity is lowered since the knees are no longer torqued severely inwardly toward the
12 horse. The riding stirrups according to the invention also help eliminate numbness and pain in
13 the outer edges of the rider's feet and toes, as well as discomfort in the rider's ankles and legs.

14 When the stirrup according to the present invention is used with a traditional
15 western saddle or the improved saddle described in U.S. Patent No. 5,953,889 many of the riding
16 instruction techniques used over the years in western riding become unnecessary. That is, the
17 present stirrups dictate many of the correct horsemanship riding position characteristics and
18 eliminate the necessity for the rider to constantly adjust in the saddle to retain a proper riding
19 position.

20 These and other objects, advantages, and features of the invention will be apparent from
21 the following description of the preferred embodiments, considered along with the accompanying
22 drawings.

1
2 BRIEF DESCRIPTION OF THE DRAWINGS

3 Figure 1 is a view in perspective of a riding stirrup embodying the principles of the
4 present invention.

5 Figure 2 is a rear view of the stirrup shown in Figure 1.
6

7 DESCRIPTION OF THE PREFERRED EMBODIMENT

8 A stirrup 10 for use on a western equestrian saddle (not shown) is suspended from the
9 saddle on stirrup leathers (not shown) which receive a stirrup hanger rod 11. Hanger rod 11 is
10 preferably at least 2 inches in length and is connected to a stirrup loop shown generally at
11 reference numeral 12. Stirrup loop 12 defines a loop or stirrup opening 14 through which the
12 rider extends the front portion of their foot when in the riding position. The illustrated stirrup
13 loop 12 includes an interior side 15, an exterior side 16, and an elongated base support tread 17.
14 The sides 15 and 16 of the stirrup loop taper outwardly or diverge in the direction from hanger
15 rod 11 toward the base support tread 17.

16 Stirrups such as the illustrated stirrup 10 are generally used in pairs with one stirrup
17 suspended from each lateral side of the saddle. The interior side 15 of the stirrup is side of the
18 stirrup that is closest to the horse when in the operating position for the stirrup. The length of
19 interior side 15 is generally shorter than the length of the exterior side 16 due to the angle or slant
20 of base support tread 17. Both interior and exterior side (15 and 16) of the stirrup will be, but not
21 limited to, generally equidistant from a stirrup centerline CL extending substantially
22 perpendicular to the longitudinal axis of hanger rod 11, through a mid point of the stirrup hanger
23 rod, and through the base support tread.

As best shown in Figure 2, base support tread 17 is located, nominally centered, on stirrup centerline CL. Also, base support tread 17 is angled or slanted downwardly from an inner tread section 20 toward an outer tread section 21, away from the horse body when the stirrup is in the operating position. That is, with respect to a horizontal plane H above the level of base support tread 17 when the stirrup 10 is in the operating position, the elongated base support tread slants so that the shortest distance between the upper surface of inner tread section 20 and the horizontal plane is less than the shortest distance between the upper surface of the outer tread section 21 and the horizontal plane. In the preferred form of the invention illustrated in the figures the longitudinal axis R of hanger rod 11 extends generally horizontally when stirrup 10 is in the operating position.

With the angle of the base support tread 17 the upper surface of outer tread section 21 defines an outer angle 24 with respect to stirrup centerline CL which is greater than an inner angle 25 defined by the upper surface of inner tread section 20 and the stirrup centerline. Also, the upper surface of the preferred inner tread section 20 is coplanar with the upper surface of the outer tread section 21 so that the surfaces extend along a straight line with inner angle 24 comprising an acute angle and outer angle 25 comprising an obtuse angle.

The stirrup 10 may be machined from blocks of solid aluminum or cast in aluminum or other suitable metal. Stirrup 10 may also be made from a variety of materials including, but not limited to, wood, plastic, fiberglass or combinations thereof. Protective and/or decorative coverings (not shown) for the stirrups may include rawhide, leather, cloth, paint, silver, gold, bronze, powder coat, combinations of coverings and coatings or simply no covering at all.

The above described preferred embodiments are intended to illustrate the principles of the invention, but not to limit the scope of the invention. Various other embodiments and

- 1 modifications to these preferred embodiments may be made by those skilled in the art without
- 2 departing from the scope of the following claims.